

Amendments to the Specification:

Please replace paragraph [11] with the following amended paragraph:

[0011] FIGS. 1 and 2 illustrate[s] a probe pin cleaning device, shown generally at 10, configured and operating in accordance with the present invention for the removal of unwanted build-up from probe pin tips. The build-up includes, for example, metal and metal oxides from bond pads of IC devices being tested with a probe device.

Please replace paragraph [12] with the following amended paragraph:

[0012] The probe pin cleaning device 10 includes a top holding plate 20, a bottom holding plate 30 and a cleaning cartridge 40. In one embodiment, the top holding plate 20 includes clamps 22 for securing a probe head assembly, shown generally at 60, such as, for example, probe cards sold under the trademarks COBRA® and VENOM® Probe Cards of by Wentworth Laboratories, Inc., of Brookfield, CT USA. In one embodiment, the bottom plate 30 includes a key way 50 adapted to receive and retain the cleaning cartridge 40[.] and holes 23 for receiving clamps 22.

Please replace paragraph [14] with the following amended paragraph:

[0014] In one embodiment, the top holding plate 20 is coupled to the bottom holding plate 30 to permit rotation of the top holding plate 20 from a first, open position (FIGS. 1, 2 and 4A) in a direction indicated by arrows 100 to a second, closed position (FIG. 4C). This rotational movement is illustrated in detail in FIGS. 4A-4C. In the closed position the top holding plate 20 is positioned over the bottom holding plate 30 so that probe pins 62 of the probe head 60 contact the absorbent pad 46 within the chamber 42 of the cleaning cartridge 40 (FIGS. 4C, 5 and 6). In one embodiment, the top holding plate 20 includes a plurality of guides 2[2]4 and the bottom holding plate 30 includes a plurality of holes or slots 32 for receiving the guides 2[2]4. The guides 2[2]4 and slots 32 cooperate to provide a predetermined alignment of the top holding

plate 20 and the bottom holding plate 30. FIGS. 5 and 6 provide detailed views of the contact of probe pins 62 of the probe head assembly 60 and the absorbent pad 46 of the cleaning cartridge 40.

Please replace paragraph [15] with the following amended paragraph:

[0015] In accordance with the present invention, the penetration of tips of the probe pins 62 into the absorbent pad 46 is controlled by the design of the cleaning cartridge 40. For example, referring now to FIGS. 5 and 6, a distance D between an upper surface 48 of the cartridge 40 to a top surface 46A of the absorbent pad 46 is controlled by the design of the cartridge 40. As ~~illustrated in FIGS. 5 and 6~~, [a]A surface 64 of the probe head assembly 60 rests on the upper surface 48 of the cartridge 40 which, in turn, determines a depth d of penetration of the probe pins 62 into the absorbent pad 46. In the closed position the top holding plate 20 and the bottom holding plate 30 are designed to fit such that an operator does not have to align the probe head to the cleaning cartridge. As can be appreciated the clamps 22 and holes 23, the key way 50, and the guides 2[2]4 and slots 32, cooperate to facilitate the alignment of the probe head 60 and cleaning cartridge 40.

Please replace paragraph [16] with the following amended paragraph:

[0016] It also should be appreciated that the improved probe pin cleaning device 10 includes three integral parts (e.g., holding plates 20 and 30 and the cleaning cartridge 40) which, when combined, form an easy, reusable, self-aligning, chemically metered method of cleaning tips of probe pin 6[6]2 of probe head assemblies 60 without invasion of unwanted chemical or debris into or onto the outer surfaces of the probe head assemblies 60. The inventors have realized that once contact is established between the tips of the probe pins 62 and the absorbent pad 46, the cleaning solution 44 acts upon the tips of the probe pins 62 to remove unwanted debris. It is preferable to maintain contact for about two (2) minutes to remove the unwanted debris.

Please replace paragraph [17] with the following amended paragraph:

[0017] In one aspect of the present invention, the cleaning cartridge 40 is replaceable after each use or after a predetermined number of uses. In one embodiment, the holding fixtures 20 and 30 and the cleaning cartridge 40 are made of polypropylene, a chemically inert material such as polyvinylchloride, or other suitable material to resist decay from exposure to the cleaning solution 44. It should be appreciated that the cleaning solution is a specific chemical capable of dissolving and holding tin-lead accumulations formed on tips of the probe pins 62 of a probe head assembly 60.

Please replace paragraph [18] with the following amended paragraph:

[0018] As shown in FIG. 3B, the cleaning cartridge 40 includes a chamber shown generally at 42. The cleaning solution 44 and the absorbent pad 46, saturated with the cleaning solution, are located within the chamber 42. In one embodiment, the cleaning cartridge 40 includes a removable cover or membrane cover 45 to seal the chamber 42 and elements therein (e.g., the cleaning solution 44 and the absorbent pad 46) from the environment until it is to be used. In one embodiment, the removable cover 45 may be employed to reseal the chamber after use and may include a safety recess 47 to prevent accidental bending of probe tips 62. As such, any remaining cleaning solution and unwanted debris from the cleaning operation can be encapsulated to prevent exposure to the operator.